Service Schematics

Introduction

NOKIA 6030

RM-74/RM-75

<u>IMPORTANT:</u>

This document is intended for use by authorized NOKIA service centers only.

"Service Schematics" was created with focus on customer care.
The purpose of this document is to provide further technical repair information for NOKIA mobile phones on Level 3/4 service activities.
It contains additional information such as e.g. "Component finder", "Frequency band table" or "Antenna switch table".
The "Signal overview" page gives a good and fast overview about the most important signals and voltages on board.
Saving process time and improving the repair quality is the aim of this document.
It is to be used additionally to the service manual and other training or service information such as Service Bulletins.

<u>All measurements were made using following equipment:</u>

Nokia repair SW	: Phoenix version 2005.12.5.90
Oscilloscope	: Fluke PM 3380A/B
Spectrum Analyzer	: Advantest R3162 with an analog probe
RF-Generator / GSM Tester	: Rhode & Schwarz CMU 200
Multimeter	: Fluke 73 Series II

While every endeavour has been made to ensure the accuracy of this document, some errors may exist. If the reader finds any errors, NOKIA should be notified in writing.

Please send E-Mail to: <u>training.sace@nokia.com</u>

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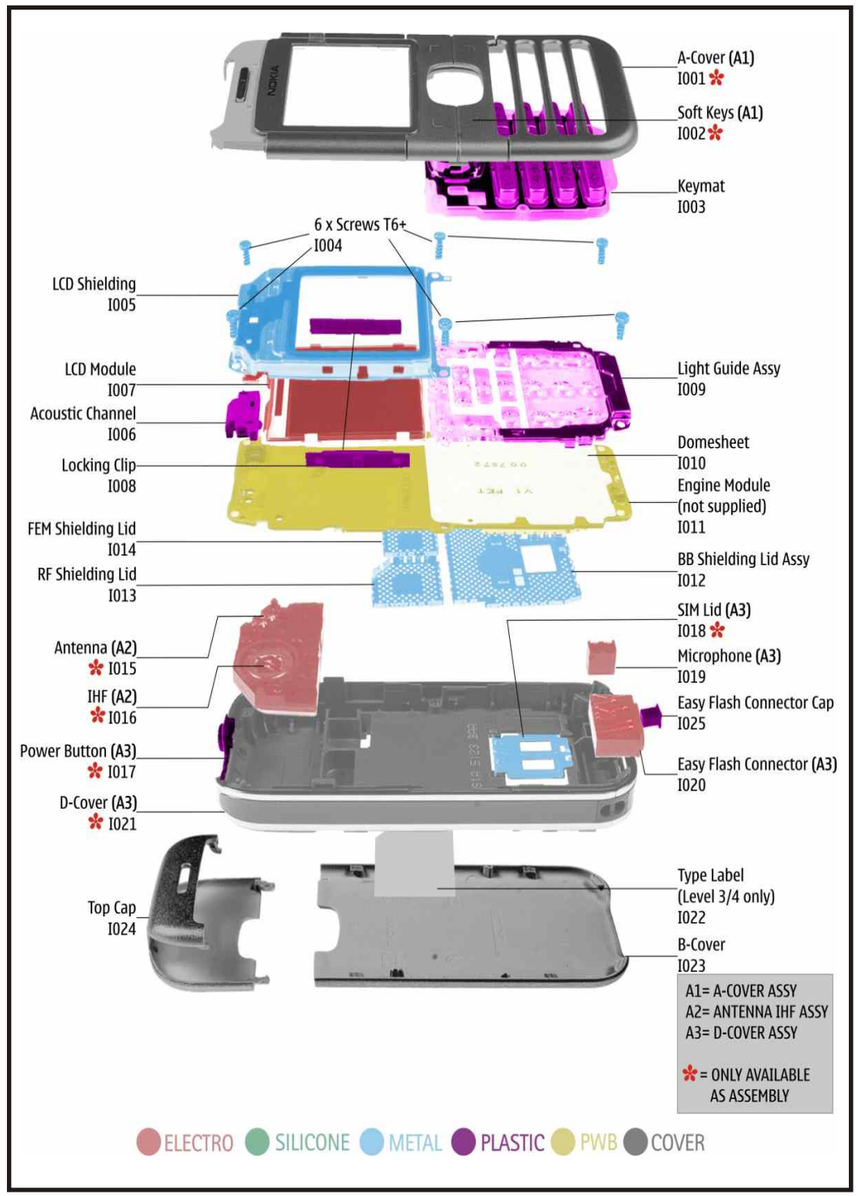
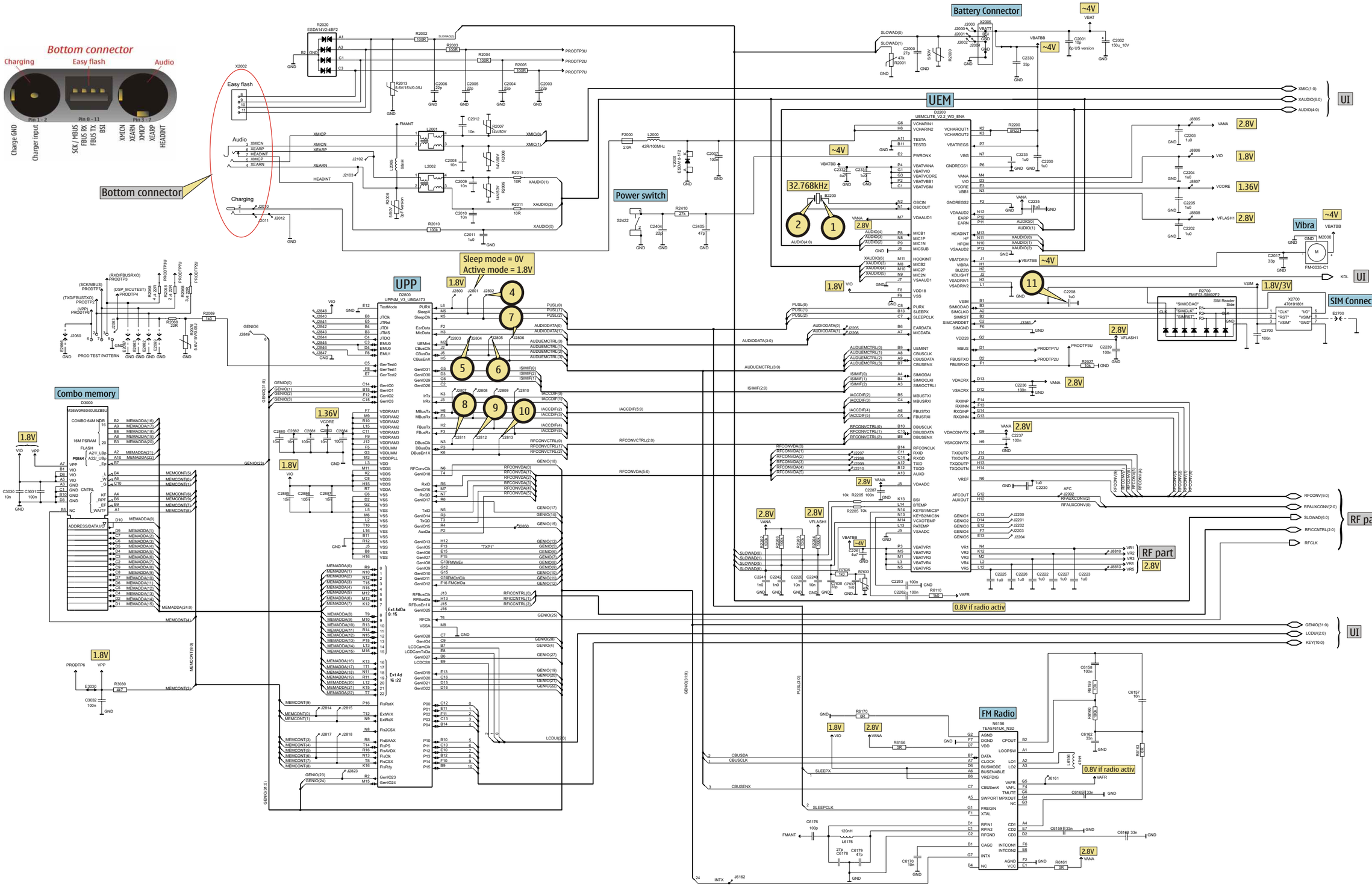
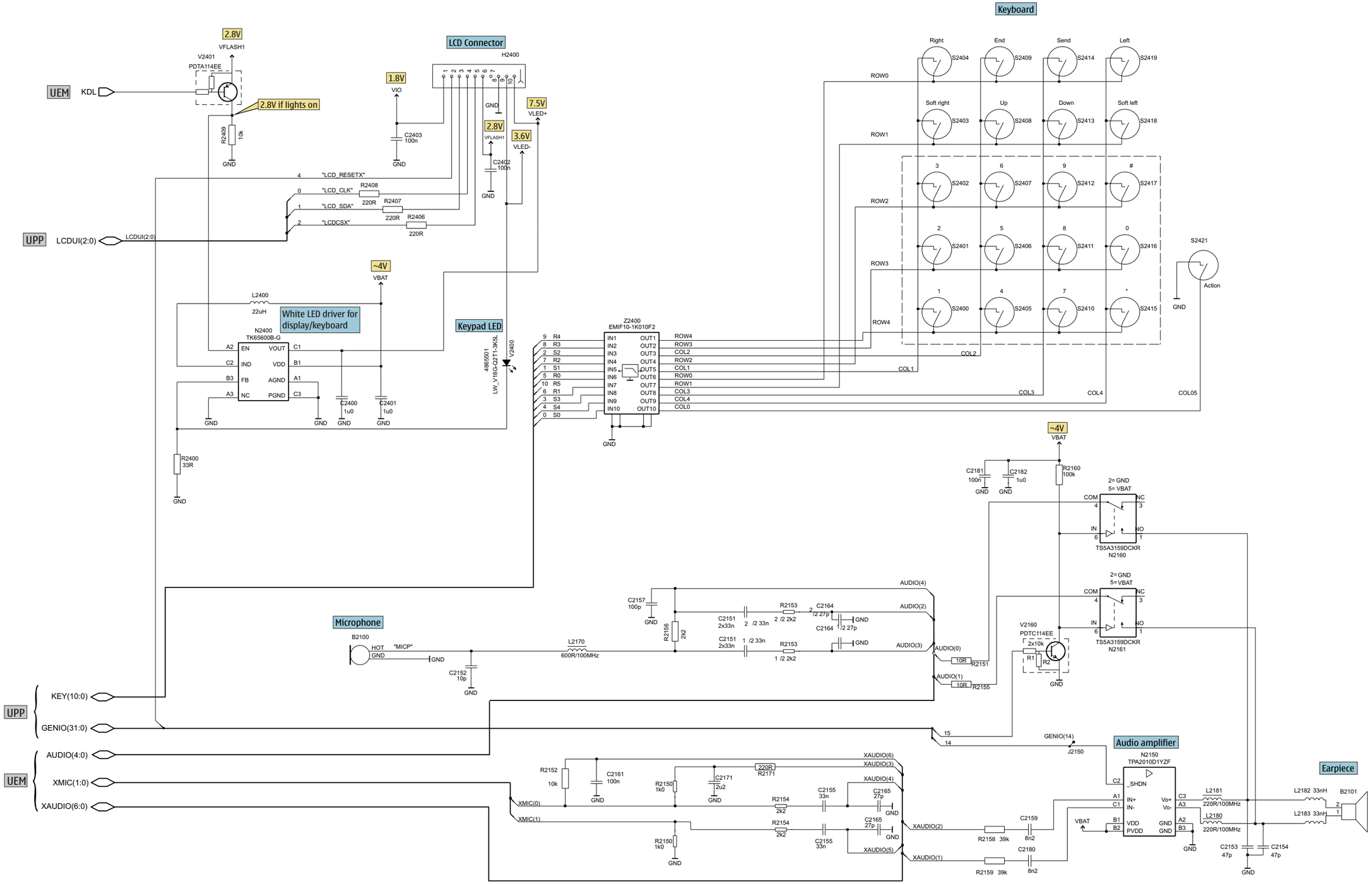
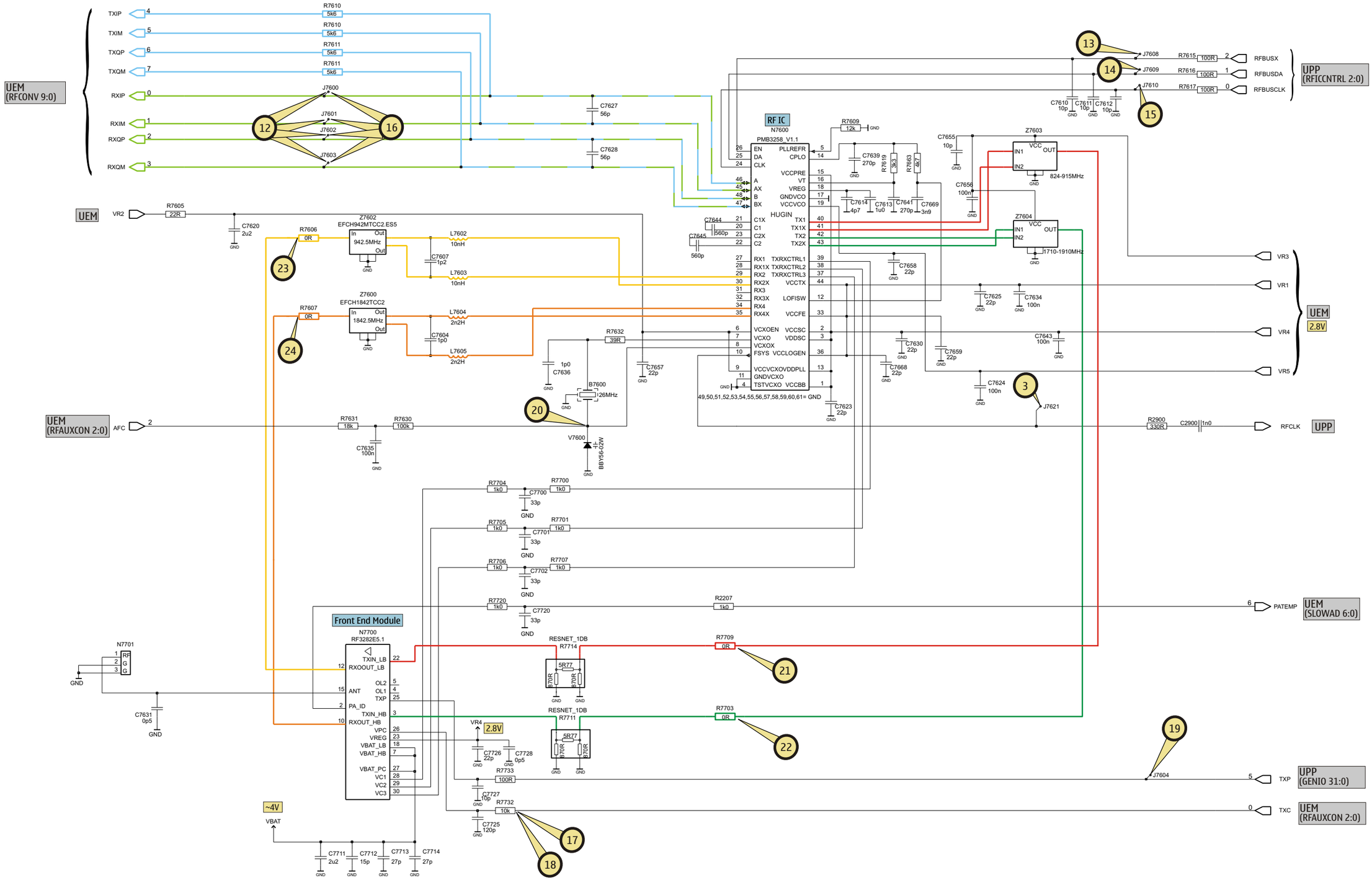
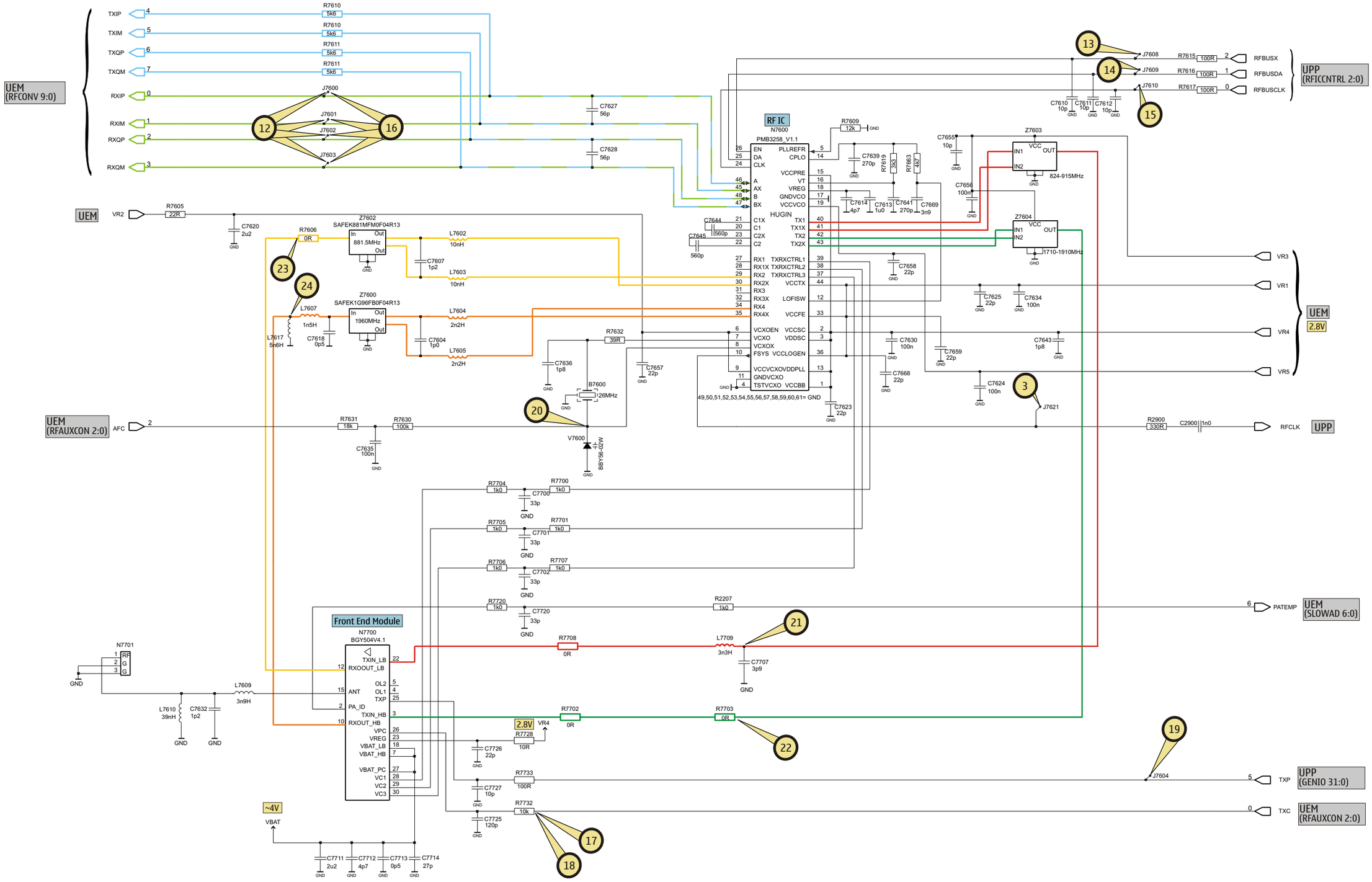
Exploded view and component disposal

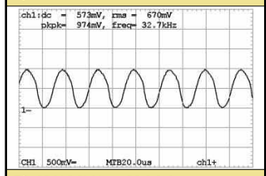
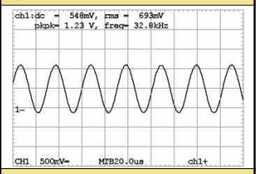
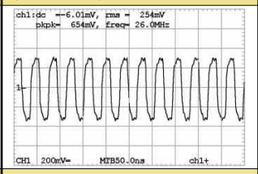
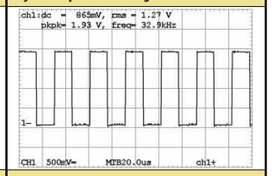
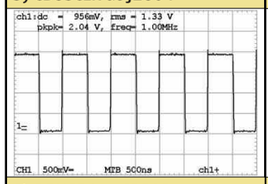
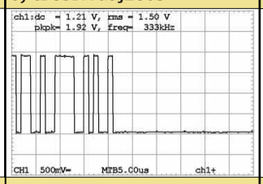
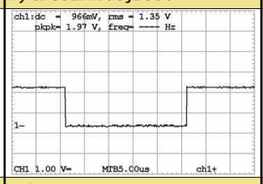
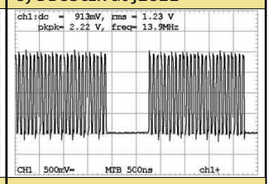
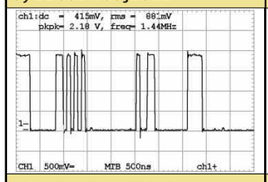
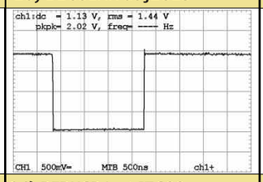
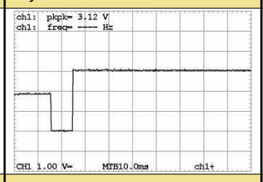
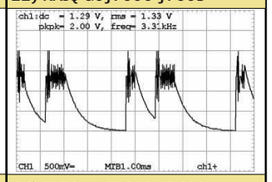
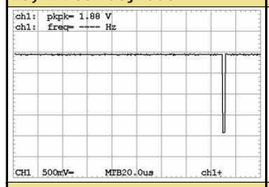
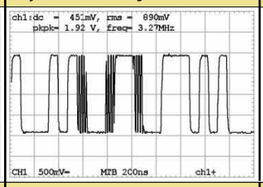
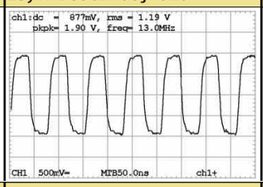
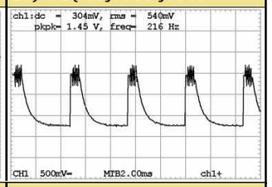
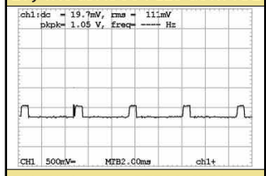
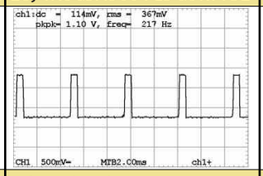
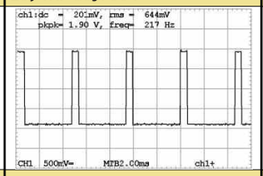
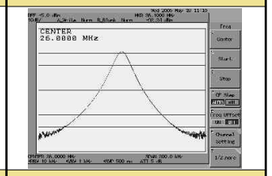
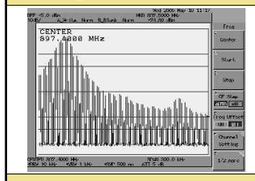
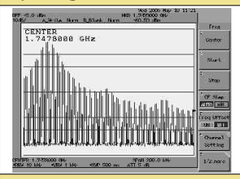
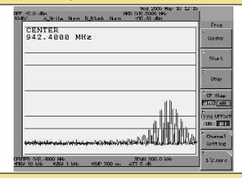
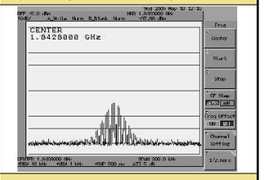


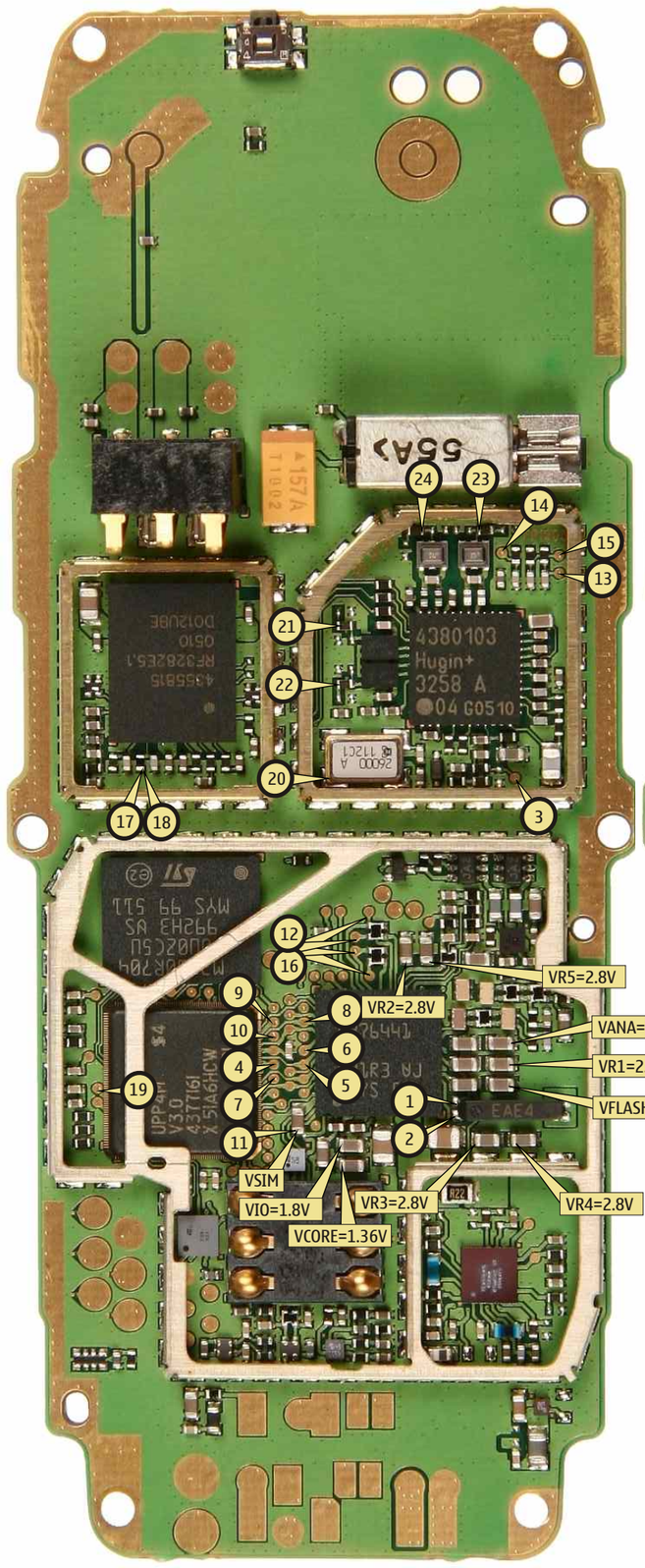

Bottom connector
Charging
Easy flash
Audio
Pin 1 - 2
Pin 8 - 11
Pin 3 - 7
Charge GND
Charger input
SCK / MBUS
FBUS RX
FBUS TX
BSI
XMICN
XEARN
XMICP
XEARP
HEADINT
Bottom connector
Power switch
UPP
Sleep mode = 0V
Active mode = 1.8V
Combo memory
UEM
Battery Connector
Vibra
SIM Connector
FM Radio
RF part
UI
32.768kHz
0.8V if radio activ


Keyboard
LCD Connector
H2400
Keypad LED
Microphone
Audio amplifier
Earpiece
UEM
UPP
KDL
LCDUI(2:0)
2.8V
VFLASH1
V2401
PDTA114EE
2.8V if lights on
R2409
10k
1.8V
VIO
C2403
100n
7.5V
VLED+
3.6V
VLED-
C2402
100n
"LCD_RESETX"
"LCD_CLK"
"LCD_SDA"
"LCDCSX"
R2408
220R
R2407
220R
R2406
220R
~4V
VBAT
L2400
22uH
White LED driver for display/keyboard
N2400
TK65600B-G
EN
VOUT
IND
VDD
FB
AGND
NC
PGND
C2400
1u0
C2401
1u0
R2400
33R
V2400
4865501
LW_V18G-Q2T1-3K5L
Z2400
EMIF10-1K010F2
Right
End
Send
Left
Soft right
Up
Down
Soft left
S2404
S2409
S2414
S2419
S2403
S2408
S2413
S2418
S2402
S2407
S2412
S2417
S2401
S2406
S2411
S2416
S2400
S2405
S2410
S2415
S2421
Action
ROW0
ROW1
ROW2
ROW3
ROW4
COL1
COL2
COL3
COL4
COL05
C2181
100n
C2182
1u0
R2160
100k
2= GND
5= VBAT
TS5A3159DCKR
N2160
N2161
V2160
PDTC114EE
2x10k
R1
R2
C2157
100p
C2151
2x33n
R2153
2k2
C2164
27p
R2156
2k2
L2170
600R/100MHz
B2100
HOT
GND
"MICP"
C2152
10p
AUDIO(0)
AUDIO(1)
AUDIO(2)
AUDIO(3)
AUDIO(4)
10R
R2151
R2155
KEY(10:0)
GENIO(31:0)
AUDIO(4:0)
XMIC(1:0)
XAUDIO(6:0)
GENIO(14)
J2150
N2150
TPA2010D1YZF
_SHDN
IN+
IN-
Vo+
Vo-
VDD
PVDD
R2152
10k
C2161
100n
R2150
1k0
C2171
2u2
220R
R2171
R2154
2k2
C2155
33n
C2165
27p
XAUDIO(1)
XAUDIO(2)
XAUDIO(3)
XAUDIO(4)
XAUDIO(5)
XAUDIO(6)
XMIC(0)
XMIC(1)
R2158 39k
R2159 39k
C2159
8n2
C2180
8n2
L2181
L2180
220R/100MHz
L2182 33nH
L2183 33nH
B2101
C2153
47p
C2154
47p


UEM (RFCONV 9:0)
TXIP
TXIM
TXQP
TXQM
RXIP
RXIM
RXQP
RXQM
R7610 5k6
R7610 5k6
R7611 5k6
R7611 5k6
J7600
J7601
J7602
J7603
C7627 56p
C7628 56p
RF IC
N7600
PMB3258_V1.1
HUGIN
R7609 12k
C7639 270p
R7619 3k3
R7663 47k
C7614 4p7
C7613 1u0
C7641 270p
C7669 3n9
C7644 560p
C7645 560p
J7608
J7609
J7610
R7615 100R
R7616 100R
R7617 100R
RFBUSX
RFBUSDA
RFBUSCLK
UPP (RFICCNTRL 2:0)
C7610 10p
C7611 10p
C7612 10p
Z7603
C7655 10p
C7656 100n
824-915MHz
Z7604
1710-1910MHz
UEM
VR2
R7605 22R
C7620 2u2
Z7602
EFCH942MTCC2.ES5
942.5MHz
R7606 0R
L7602 10nH
C7607 1p2
L7603 10nH
Z7600
EFCH1842TCC2
1842.5MHz
R7607 0R
L7604 2n2H
C7604 1p0
L7605 2n2H
R7632 39R
1p0 C7636
C7657 22p
B7600
26MHz
C7658 22p
C7625 22p
C7634 100n
C7643 100n
C7630 22p
C7659 22p
C7668 22p
C7624 100n
C7623 22p
J7621
VR3
VR1
VR4
VR5
UEM 2.8V
49,50,51,52,53,54,55,56,57,58,59,60,61= GND
UEM (RFAUXCON 2:0)
AFC
R7631 18k
R7630 100k
C7635 100n
V7600
BBY56-02W
R2900 330R
C2900 1n0
RFCLK
UPP
R7704 1k0
R7700 1k0
C7700 33p
R7705 1k0
R7701 1k0
C7701 33p
R7706 1k0
R7707 1k0
C7702 33p
R7720 1k0
C7720 33p
R2207 1k0
PATEMP
UEM (SLOWAD 6:0)
Front End Module
N7700
RF3282E5.1
N7701
C7631 0p5
RESNET_1DB
R7714 5R77
R7709 0R
R7711 5R77
R7703 0R
VR4 2.8V
C7726 22p
C7728 0p5
R7733 100R
C7727 10p
R7732 10k
C7725 120p
~4V
VBAT
C7711 2u2
C7712 15p
C7713 27p
C7714 27p
J7604
TXP
TXC
UEM (GENIO 31:0)
UEM (RFAUXCON 2:0)


UEM (RFCONV 9:0)
TXIP
TXIM
TXQP
TXQM
RXIP
RXIM
RXQP
RXQM
R7610 5k6
R7610 5k6
R7611 5k6
R7611 5k6
J7600
J7601
J7602
J7603
C7627 56p
C7628 56p
RF IC
N7600
PMB3258_V1.1
HUGIN
R7609 12k
C7639 270p
R7619 3k3
R7663 47k
C7614 4p7
C7613 1u0
C7641 270p
C7669 3n9
C7644 560p
C7645 560p
C7658 22p
C7625 22p
C7634 100n
C7630 100n
C7659 22p
C7668 22p
C7643 1p8
C7624 100n
C7623 22p
C7657 22p
C7636 1p8
R7632 39R
B7600 26MHz
V7600 BBY56-02W
49,50,51,52,53,54,55,56,57,58,59,60,61= GND
J7608
J7609
J7610
R7615 100R
R7616 100R
R7617 100R
RFBUSX
RFBUSDA
RFBUSCLK
UPP (RFICCNTRL 2:0)
C7610 10p
C7611 10p
C7612 10p
C7655 10p
C7656 100n
Z7603
Z7604
824-915MHz
1710-1910MHz
VR3
VR1
VR4
VR5
UEM 2.8V
UEM
VR2
R7605 22R
C7620 2u2
R7606 0R
Z7602
SAFEK881MFM0F04R13
881.5MHz
L7602 10nH
L7603 10nH
C7607 1p2
Z7600
SAFEK1G96FB0F04R13
1960MHz
L7604 2n2H
L7605 2n2H
C7604 1p0
L7607 1n5H
L7617 5n6H
C7618 0p5
UEM (RFAUXCON 2:0)
AFC
R7631 18k
R7630 100k
C7635 100n
R2900 330R
C2900 1n0
RFCLK
UPP
R7704 1k0
R7700 1k0
C7700 33p
R7705 1k0
R7701 1k0
C7701 33p
R7706 1k0
R7707 1k0
C7702 33p
R7720 1k0
C7720 33p
R2207 1k0
PATEMP
UEM (SLOWAD 6:0)
Front End Module
N7700
BGY504V4.1
N7701
L7609 3n9H
L7610 39nH
C7632 1p2
R7708 0R
L7709 3n3H
C7707 3p9
R7702 0R
R7703 0R
2.8V
R7728 10R
C7726 22p
R7733 100R
C7727 10p
R7732 10k
C7725 120p
J7604
TXP
TXC
UPP (GENIO 31:0)
UEM (RFAUXCON 2:0)
~4V
VBAT
C7711 2u2
C7712 4p7
C7713 0p5
C7714 27p
12
13
14
15
16
17
18
19
20
21
22
23
24
3
J7621

1) 32.768kHz at B2200 in	2) 32.768kHz at B2200 in	3) RFCLK at J7621	4) Sleepclock at J2802
			
5) CBUSCLK at J2804	**6) CBUSDA at J2805**	**7) CBUSENX at J2806**	**8) DBUSCLK at J2811**
			
9) DBUSDA at J2812	**10) DBUSENX at J2813**	**11) VSIM at C2208**	**12) RXIQ at J7600-J7603**
			
13) RFBUSX at J7608	**14) RFBUSDA at J7609**	**15) RFBUSCLK at J7610**	**16) TXIQ at J7600-J7603**
			
17) TXC GSM900 PL19 at R7732	**18) TXC GSM900 PL5 at R7732**	**19) TXP at J7604**	**20) 26MHz at B7600**
			
21) TX signal at R7709/C7709	**22) TX signal R7703**	**23) RX signal at R7606**	**24) RX signal at R7607/L7607**
			



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C		C2242	M6	C7630	K6	J2102	T4	J7602	M5	R2009	R4	R7616	H7
C2000	G3	C2261	P6	C7631	D3	J2103	S4	J7603	N5	R2010	S3	R7617	H7
C2001	G2	C2262	Q8	C7634	I7	J2150	N4	J7604	O2	R2011	R4	R7619	J8
C2002	G4	C2263	R8	C7635	K6	J2200	N5	J7608	I8	R2013	R5	R7630	K6
C2003	S5	C2287	M5	C7636	K6	J2201	N5	J7609	H7	R2020	R5	R7631	K7
C2004	R5	C2330	G2	C7637	K2	J2202	N5	J7610	H8	R2027	R5	R7632	K6
C2005	R5	C2331	P5	C7638	K2	J2203	N4	J7621	K7	R2068	S2	R7633	K2
C2006	R5	C2332	P5	C7639	J7	J2204	M5	J8805	M5	R2069	S2	R7635	K2
C2007	S7	C2400	U4	C7641	J7	J2205	O4	J8806	N2	R2070	S2	R7663	K8
C2008	R4	C2401	U6	C7643	K6	J2206	O4	J8807	O4	R2150	N7	R7700	I5
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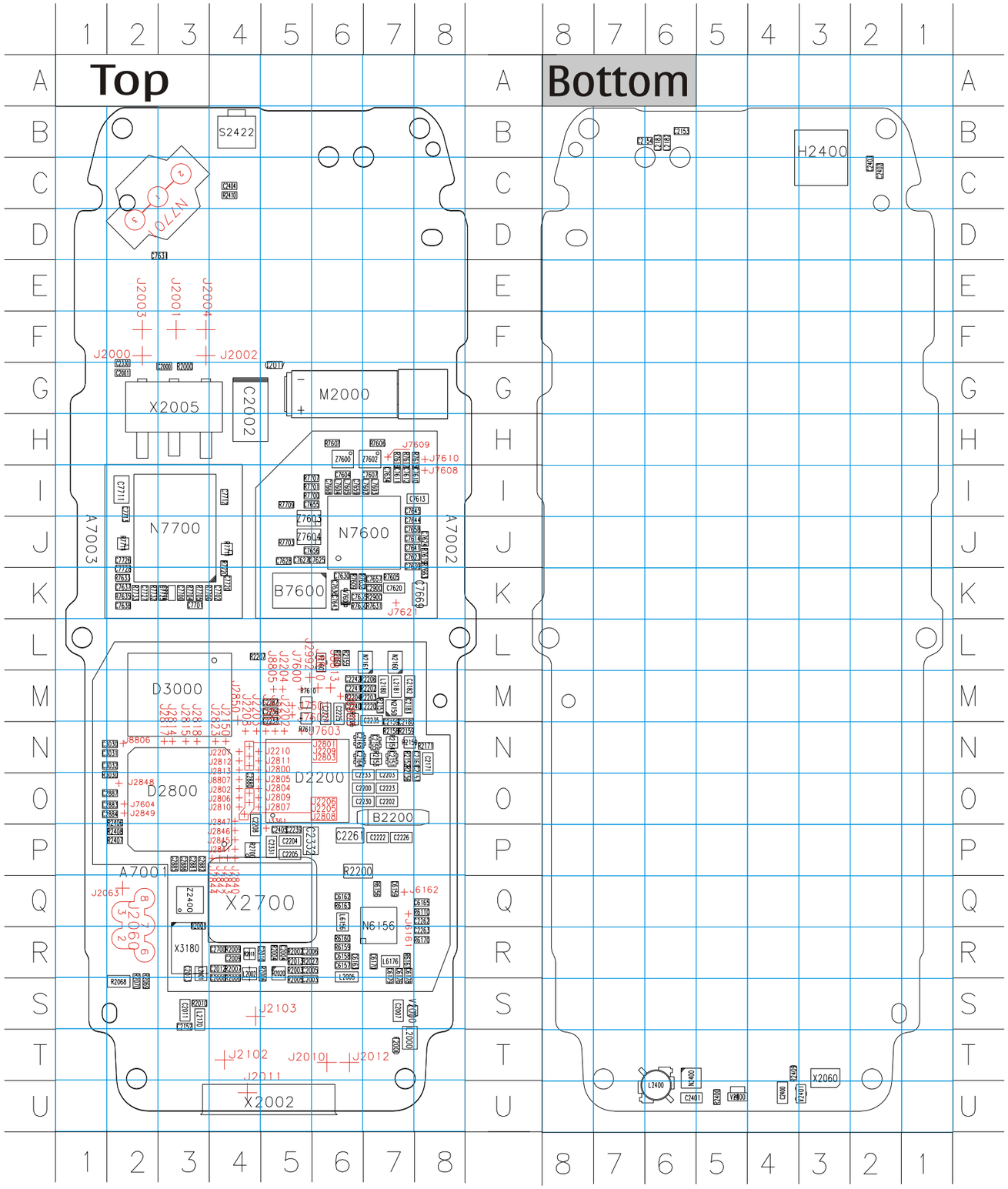

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C2006	R5	C2332	P5	C7638	K2	J2203	N4	J7621	K7	R2010	S3	R7619	J8
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C2157	O8	C2886	P3	C7701	K3	J2806	O4	L2181	M7	R2156	O7	R7707	I5
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